SKQ45N06AD

60V N-Channel MOSFET

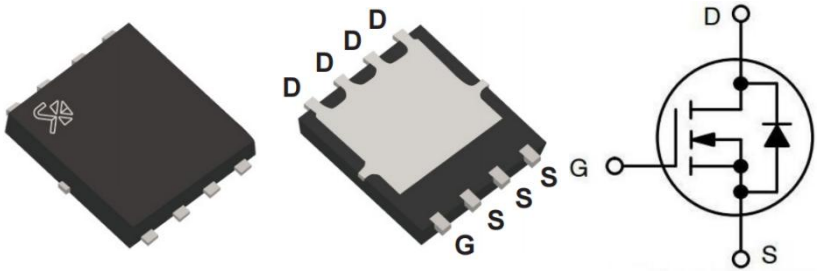
BV_{DSS},T_A=25℃	$R_{DS(ON)}$,typ@10V	ID,T_A=25℃
60V	9mΩ	45A

Features

- 60V N-Channel MOSFET High Dense Design
- Logic Level Threshold Voltage
- Reliable and Rugged

Applications

- Secondary Side Synchronous Rectification
- DC-DC Converter
- Motor Control



PDFN5x6-8L

Absolute Maximum Ratings(T_A=25℃,unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DSS}	60	V
Gate-Source Voltage	V_{GSS}	±20	V
Continuous Drain Current	I_D	45	A
Pulsed Drain Current	I_{DM}	180	A
Maximum Power Dissipation	P_D	46	W
Maximum Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃
Thermal Resistance-Junction to Case	$R_{J\theta C}$	2.7	℃/W

Electrical Characteristics(T_A=25℃,unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V,I_{DS}=250μA	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V,V_{GS}=0V			1	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS},I_{DS}=250μA	1.0		2.5	V
Gate Leakage Current	I_{GSS}	V_{GS}=±20V,V_{DS}=0V			±100	nA
Drain-Source On-state Resistance	$R_{DS(ON)}$	V_{GS}=10V,I_{DS}=20A		9	11	mΩ
		V_{GS}=4.5V,I_{DS}=15A		14	17	mΩ
Source-Drain Characteristics						
Diode Forward Voltage	V_{SD}	I_{SD}=10A,V_{GS}=0V		0.8	1.2	V

Note:

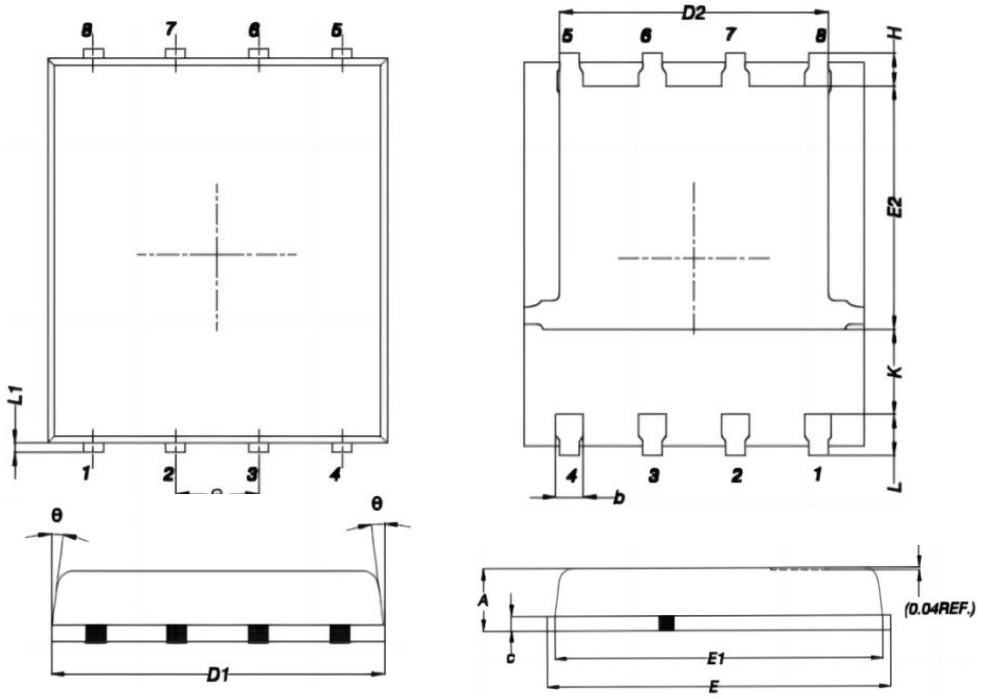
1.The data tested by pulse, pulse width ≤ 300us, duty cycle ≤ 2%

2.$R_{DS(ON)}$ calculated by PDFN5x6-8L Package Type for customer reference

Package Information

PDFN5x6-8L

Dimensions in mm



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MAX	MIN	MAX	MIN
A	1.200	0.850	0.047	0.031
b	0.510	0.300	0.020	0.012
C	0.300	0.200	0.012	0.008
D1	5.400	4.800	0.212	0.189
D2	4.310	3.610	0.170	0.142
E	6.300	5.850	0.248	0.230
E1	5.960	5.450	0.235	0.215
E2	3.920	3.300	0.154	0.130
e	1.27BSC		0.05BSC	
H	0.650	0.380	0.026	0.015
K	---	1.100	---	0.043
L	0.710	0.380	0.028	0.015
L1	0.250	0.050	0.009	0.002
θ	12°	0°	12°	0°

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